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COMMUNITY MEDICINE

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Community medicine has different definitions. It is often referred to as public health, preventive medicine, or social medicine. Public health is a misleading term, however, since we are talking in community medicine about personal health multiplied many times. Likewise, preventive medicine does not capture the meaning since all of medicine is preventive, whether referring to the prevention of illness, prevention of disease, prevention of the progression or persistence of disability, or prevention of death. Social medicine has too many adverse connotations to be as useful a term as it might be.

What we are here talking about is medicine of man in the aggregate. It goes beyond the discussions of care of total man to care of total men. It does not separate medicine into curative and community or curative and preventive but rather deals with medicine as a total approach. For all of our abilities to admire specialization, this is not a specialty. It is a philosophy. A philosophy which appreciates that total resources will never meet total needs and therefore asks, "How can we deliver the greatest amount of healing with our limited resources?" It is a philosophy which appreciates that all of our medical efforts in Africa leave things undone and is willing to ask, "Are these things left undone actually higher priorities?" It is a philosophy that recognizes the true tragedy of a child dying of measles a mile from a mission hospital. A preventable disease not prevented. The questions are directed to the health needs of groups, communities, areas, countries, and regions.

While working in the relief action in Nigeria, a woman gave a package to a relief team, said, "Thanks Red Cross", and left. It was the dead body of her starved child who but for better perspective would have lived. We live in medical missions with the burden of thousands of such packages, each bearing a note, "Thanks medical missions" -- who but for our perspective would be alive.

I will speak today of three things: (1) the practical dangers of our present approach; (2) examples of a community approach drawn from West Africa; (3) suggestions for community medicine in our present medical mission approach.

Practical dangers of our present approach

The heart of medical mission practice as we have seen has been curative medicine. Hospitals and clinics are the vehicle of delivery. One assembles the sick and the needy after they are sick and needy. Some of this is the result of a very limited look at health or blind activism, but much of it is the result of reasonable men reaching the conclusion that this is how the church should work. For instance, Dr Paul Brand has said, "Inoculations are something for which the people may feel no conscious need. Other public health measures, such as training in hygiene, may also fall into this category, but a missionary doctor treats actual needs in individuals."

Another missionary doctor, Dr Pfaltzgraf, has said, "If you are working on mosquitoes rather than treating the child with malaria, you have failed that mother and her dying child."

I have great respect for these men and quote them because I know they express the feelings of many of you. But perhaps we have been wrong. Dr Franklin Neva, Associate Professor of Tropical Public Health at Harvard, says, "What the developing tropical nations actually need is better nutrition, education, and preventive medicine -- insect control, sanitation, inoculations. The lack of preventive medicine so far is a heritage from the curative-medicine-minded missionary doctors."

Perhaps the difficulty in comparing mosquito work to a child with malaria is that you can see the child and the mother's gratitude. You cannot see the six children who might have been spared malaria with the same investment of time and talent in mosquito control. Yet you have failed those six to no less an extent.

I am impressed by the arguments made in the last few days that missions have inadequate money. I am not impressed, however, if you have money and staff to run a hospital but cannot get money and staff for community medicine because it means the priorities are wrong. You are not seeing the full picture of what is happening in the villages. The question is not, "Can we afford to get into community medicine," but rather the question is, "Can we afford to ignore it."

Ivan Illich, a Catholic priest from Latin America, has provided a thoughtful review entitled "The Need for Counterfoil Research". He says, "the ploughs of the rich can do as much harm as their swords." Perhaps it is appropriate to say surgery theatres can do more harm than bombs because it is easier to create mass demand for the former. The nice mission with a nice but inappropriate programme is not simply harmless. He goes on to say we are victims of our environment, of the institutions we build. Progress to us means proliferation or expansion of these institutions, and as we move to aid developing areas,

we transplant our aspirations. This can lead to greater underdevelopment.

For example, a medical centre can become a mecca of quality medical care -- but what is the price? If $100 would save a life, we are easily content to say the cost of saving a life is $100. But if that $100 had been instead invested in providing safe water supplies or better nutrition and if it could have saved ten lives instead of one, then the cost of saving one life is not simply $100 but is $100 plus nine deaths. This is the production of underdevelopment. In addition, the centre now becomes a sponge absorbing surrounding medical talent, either pulling in those from other areas or preventing them from going to other areas. This produces medical underdevelopment at the periphery.

Third, it raises aspirations and fixes the demands of the majority of the population on unattainable goals. This is the production of underdevelopment as a state of mind.

"The fraud perpetuated by the salesmen of medicine is less obvious but more fundamental than that perpetuated by Coca Cola salesmen because it hooks people on a more demanding drug."

Another difficulty is the pressure of local need. It becomes difficult to resist the pressures of other missionaries who do not see beyond today and of the local people who may not understand what you are doing; and while these are difficult problems, they are solvable.

Perhaps the most difficult of the road blocks is our attitude and understanding of what healing is. As long as it is a mechanism to do a number of other things, then priorities must be determined by church and political considerations. Only when healing is seen as a responsibility of becoming a Christian, part of our redemptive function in the world which needs no other justification, do we possess the freedom to plan our medical work on the basis of the priorities of need rather than the priorities of a church board. When we as a church can see people who need food, be assured in advance that not one will be converted, and still feed them, we have understood our responsibility as a church.

Examples of a community medicine approach in West Africa

The following will describe government programmes, but it will require little imagination to transfer the philosophy to missions. The first is a programme of smallpox eradication. In 1967 we began work in 20 countries of West and Central Africa to eradicate smallpox. We have had the technical knowledge to eliminate smallpox for 170 years, but only now are we doing it. Why? We have had the ability but not the philosophy. Perspective has been lacking as we looked at individuals and not communities.

The area involved in the Smallpox Eradication Programme is larger than the continental United States, with 120 million residents. In 1967 the highest smallpox rates in the world were found in West Africa. We

began mass vaccination programmes in West and Central Africa based on country vaccination teams. The majority of the people used were non-medical people who were instructed in their particular job -- be it health education and advance publicity, surveillance, vaccinating, or assessing -- and were educated as to how this would fit into a larger plan. In addition, teams were trained to detect, investigate, and control outbreaks. A non-institutional infra-structure was in effect built in West Africa based on less tangible items such as surveillance, supervision, and assessment.

What are the results? In three years over 100 million people have been vaccinated for smallpox alone. But numbers vaccinated do not tell the story. The crucial question is what has happened to smallpox. We can now report a decline in incidence over the last several years with smallpox reports ceasing in September of 1969.

The second programme concerns measles. In West Africa 5 to 10 percent of children die of measles. In some areas 20 percent of hospital beds are involved in the care of children with measles and measles complications. In the past three years 18 million children have been vaccinated against measles in West and Central Africa. Although we have not been able to eradicate measles on the budget allotted, we have substantially reduced death and disease, and we have freed up hospital beds in the process.

Several points are worth mentioning concerning the smallpox and measles project.

> Health care has been delivered to every person interested, be they rich or poor, one mile from a medical centre or 100 miles from a medical centre.
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> Paramedical and non-medical people have been used extensively, both by the US and the African countries.
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> An attitude has developed in three years that a problem can be approached and solved by a community approach. It should be noted that this was a regional effort including both anglophone and francophone countries.
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> Teams of five non-medical people have at times vaccinated as many as 5000 people a day for smallpox and 1000 children for measles. Even if they were only 25 percent efficient with measles vaccine, they were able to prevent 250 cases of measles and 25 deaths in a day. For each worker this means saving five lives a day plus unimaginable misery. How many people in this room with degrees and residencies can claim this type of salvage?

Some suggestions for Missions

How does a mission hospital get started in community medicine? The answer is to use the principles already employed. For instance, to treat a patient you start with a history of the patient. To treat a community you start with a history of the community, and you can

define the community as some manageable geographic area. This history must include anthropological data, such as:

What does it mean to be sick?

What is done to avoid sickness?

What is done to heal sickness?

Where do people look when they are sick?

Who gives them advice?

What is the significance of different foods, eating rituals, births, deaths, marriages, etc.?

This is in effect not new information that must be acquired for a community approach, but it is information which any physician would want to know to treat an individual in the hospital. Find out what are the facts about local customs and include in the history information on vital statistics and local mapping. Obtain answers to the questions:

What are the population dynamics, the births, the age pyramid?

What are the population movements?

What is causing death, disability, failure to work, discomfort?

If you only know about these things from hospital experience, then you know only what the population thinks you can help them with. If you let the population decide your priorities (as they do with most hospital and clinic operations), you have failed to exercise your special medical training and knowledge. You have not given the community what they deserve.

Next, with a patient you do a physical examination, and likewise with the community you should do a physical exam. This could be cluster sampling for specific items such as blindness, malnutrition, heights and weights, goiter, etc. But it is also a physical examination of food availability, water availability, quality of water, waste disposal, housing, and precursors of disease.

Next, with a patient one uses the history and physical to decide whether laboratory examinations should be done and what type of examination should be done. Again, cluster sampling for blood and urine, yellow fever antibodies, parasites in the blood, etc., can be done as suggested by the history and physical. You are now in a position to analyze and set priorities on which problems are most urgent and which can be dealt with.

With the hospital patient you next set up a surveillance system. You have temperatures charted, blood pressure recorded, as well as repeat testing haematocrits.

With the community you likewise set up a surveillance system which will provide feed-back on selective items. Not for a single point in time, but continuously. Local workers can be trained to record deaths and births and keep you informed at specific intervals of key items. Start simple with such things as smallpox, measles,

malnutrition and the price of maize in order to obtain the pulse of the community. Use things which can be recognized and which you can and will respond to. Your response is the key to whether or not surveillance will continue.

Next, you find out what is planned in the area by government and other groups so as to complement their work and not compete with them.

Finally, you draw up your plans with the fourth dimension of time, including built-in assessment schemes to evaluate objectively the programme on a periodic basis.

Probable health activities for churches

One cannot predict exactly what your areas of activity will be after you have gone through the four above procedures, but they will likely include such things as:

Nutrition. Few items are as important in most African countries. Endemic, seasonal and epidemic malnutrition can be approached epidemiologically as one would an infectious disease, and malnutrition can be as amenable to control as an infectious disease. You may find an agriculturalist is needed, and in general one good agriculturalist is better than ten physicians in a developing country.

Tuberculosis. How short-sighted to treat a man and have his wife break down with tuberculosis two years later. A case of tuberculosis should lead to family treatment in the village.

Education. If a mother actually understands that her child will not get measles if the child is vaccinated, you cannot keep her away from vaccination.

It will probably mean curative work strongly biased towards the greatest salvage, thereby including paediatrics and maternal care.

It will undoubtedly include immunizations because few medical approaches have as favourable a cost-benefit ratio as do immunizations.

It will include attention to population dynamics with control procedures as indicated.

It will include using the local congregation extensively. It has been said that community medicine is far too important to be entrusted to the medical profession. Our history of medical missions, unfortunately, bears this out. Even in countries with advanced medical care, the majority of healing is done by non-professionals. If I am sick, I may see a professional healer for ten minutes; but it is my wife, children and friends who cover for me, cook my meals, and provide the support needed while I am a consumer rather than a contributor. It may involve the congre-

gation accepting responsibility in the village, both for their congregation and for others. I have seen examples of Christians taking in a non-Christian member of another tribe so he can get daily streptomycin. I have seen Christians helping to till the soil because a person has guinea worm. The congregation can be used in surveillance as volunteers to provide advance publicity, as volunteers in the mechanics of assembling people, as a core group to learn and disseminate new health information.

It may include providing safe water supplies, and again sanitary engineers are more valuable than doctors in developing countries. This is one of the points where felt needs meet real needs.

In summary, stewardship includes being a servant but also includes good administration of resources to needs. Hospitals in some places may be a luxury which the church can afford but the local community cannot afford. It is your responsibility to find out. I have taken the risk of offending you, but I have taken this risk on behalf of a child who travels through life with his potential mental capacity not met because his mother did not understand the need for protein nor the risk incurred by having another child the next year. I have taken the risk on behalf of the father and mother who lose their child from measles in the shadow of their hospital. I have taken this risk on behalf of children yet unborn.